FOSSpicks

Sparkling gems and new releases from the world of Free and Open Source Software

Mike Saunders has spent a decade mining the internet for free software treasures. Here's the result of his latest haul…

Keyboard-driven web browser

Dwb 20130503-gh2

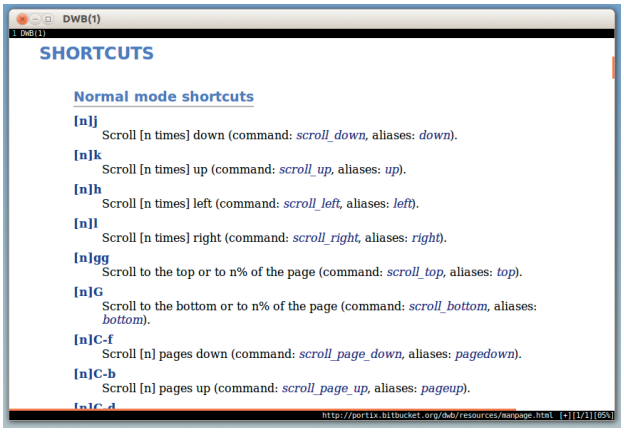
An important step in the journey of all Linux and Unix users is acceptance of the keyboard as the supreme tool for commanding a computer. Sure, a mouse or trackpad is essential sometimes – when you're editing pixels in an image, for example – but more often than not, it's just a time waster. Learn the keyboard shortcuts for your favourite applications and you'll work much faster, because you no longer have to take your fingers away from the home row to grab that clumsy rodent thing.

But what about web browsers? Unless you're a fan of Lynx or Links (in which case, kudos), you probably find it hard to imagine using a browser solely via the keyboard. But it's possible, as Dwb shows. This is a WebKit-based browser – so it uses a modern HTML rendering engine – but it has a strong focus on good keybindings.

And these keybindings are largely based on those of the mighty Vim editor (see issue 3's cover feature). For instance, the H/J/K/L keys (lowercase) scroll the page left, down, up and right respectively, while Shift+H and Shift+L (uppercase) go back and forward in your browsing history. Hit O to open a URL in the current tab, or Shift+O for a new tab. Shift+J and Shift+K cycle through tabs.

Take the hint

This is all well and good, and means you can keep your fingers on the keyboard for longer when browsing, but what about links? Surely you need a pointing device to select one of the myriad links on the page?


DWB(1)
SHORTCUTS
Normal mode shortcuts
[n]j
Scroll [n times] down (command: scroll_down, aliases: down).
[n]k
Scroll [n times] up (command: scroll_up, aliases: up).
[n]h
Scroll [n times] left (command: scroll_left, aliases: left).
[n]l
Scroll [n times] right (command: scroll_right, aliases: right).
[n]gg
Scroll to the top or to n% of the page (command: scroll_top, aliases: top).
[n]G
Scroll to the bottom or to n% of the page (command: scroll_bottom, aliases: bottom).
[n]C-f
Scroll [n] pages down (command: scroll_page_down, aliases: pagedown).
[n]C-b
Scroll [n] pages up (command: scroll_page_up, aliases: pageup).

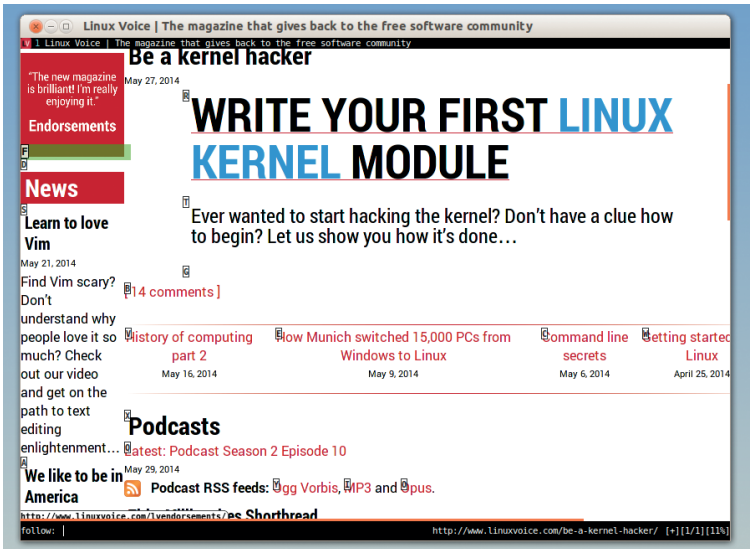
Dwb doesn't have a newbie-friendly tutorial, sadly, but the manual page on the site lists all of the keybindings.

"You'll find yourself navigating much more quickly than having to shove a cursor around the screen."

Well, Dwb has an alternative method: hit F for "hints" and small boxes appear above every link on the page. These boxes contain a letter (or multiple letters if the page has many links), so you simply type the letter(s) to "click" on the link.

And guess what: it works surprisingly well. Not with every site, but if, like us, you spend most of your time on text-heavy sites such as Wikipedia, Reddit, Slashdot and co., you'll find yourself navigating much more quickly than having to shove a mouse cursor around the screen.

It's unlikely that Dwb will replace your main browser for day-to-day usage, but for those times when you're researching, coding or doing something else text-intensive, it's fantastic and rewards you from learning the wealth of keybindings that control it.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Here we've pressed F to enable hints – ie small boxes that show the letters we need to type to visit a link.

PROJECT WEBSITE
http://portix.bitbucket.org/dwb

Process management tool

Kanboard 1.0.5

Like us, you probably get infuriated by buzzword overload. So it would've been easy for us to overlook Kanboard, an application that implements a Japanese "process management and improvement method" called Kanban – but no, we persevered. FOSSpicks is 90% blood, sweat and compilation errors, you see...

Anyway, Kanban is actually useful. Buzzwords aside, it gives a team a simplified overview of a project, with easy-to-identify tasks and deadlines, and focuses on rapid delivery of results. It can be used for software development, but it also works for other projects involving multiple people and sub-tasks. Essentially, it's a streamlined time and process management tool that encourages incremental changes and participation from everyone.

Kanboard is implemented as a web-based app, ideal for throwing onto an intranet server in a business, but you could also run it on a private host if you're working on a FOSS project with some other people and want to use it to plan releases. To run it you'll need a web server (Apache and Nginx are recommended), PHP 5.3.3 or newer, and the **mbstring** and **pdo_sqlite** modules for PHP. As that suggests, SQLite is used for storage, so on the whole the dependencies are quite minimal – thankfully.

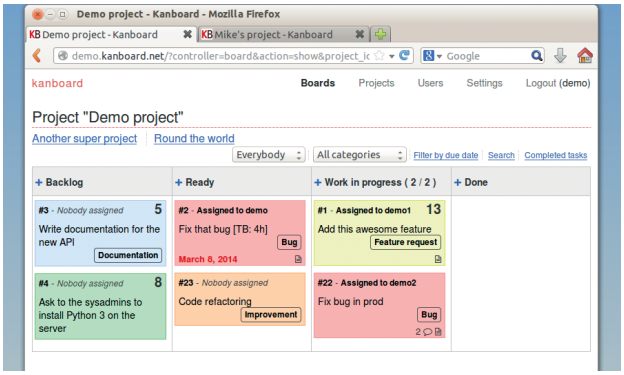
Go into your web server document root and grab the latest version of Kanboard using:

```
git clone https://github.com/fguillot/kanboard.git
```

Make the **data** directory inside it writable by the web server (eg **chown www-data:www-data data** on Debian/Ubuntu), then access **http://<hostname>/kanboard** in your browser. Log in as user **admin** with password **admin**, and you're ready to set up a new project (known as a "board").

Do the Kanban-Can

As mentioned, a core principle of the Kanban methodology is to present information quickly and easily. So by default, Kanboard boards have four columns: Backlog (tasks that need to be done but haven't been assigned to anybody); Ready (tasks that are being assigned but not yet started); Work In Progress; and Done. You can change these columns to fit your specific project more appropriately, so for bug tracking you could have Reported, Confirmed, Fixing, etc.



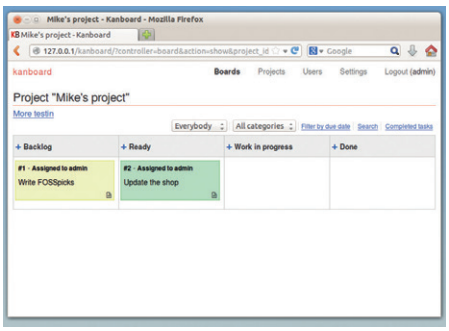
Go to **http://demo.kanboard.net** to try out a pre-populated board and see what the program is capable of.

"Kanboard is implemented as a web-based app, ideal for throwing onto an intranet in a business."

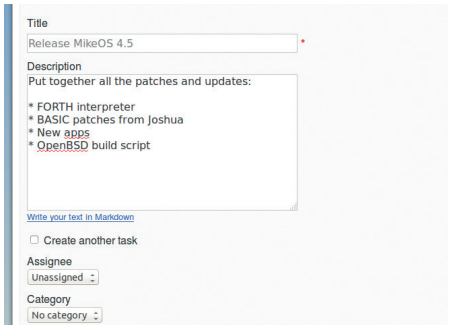
Kanboard lets you set up different categories for tasks, with corresponding colours, and you can create different users to assign to tasks. An especially useful feature is Automatic Actions, which reduces the amount of time you have to spend administering the board. For instance, you can configure Kanboard so that when you move a task to a specific column, it's assigned to a certain user. This is great if you have one user in charge of QA, for example, and you want he or she to be responsible for everything that lands in the "Testing" column.

PROJECT WEBSITE
www.kanboard.net

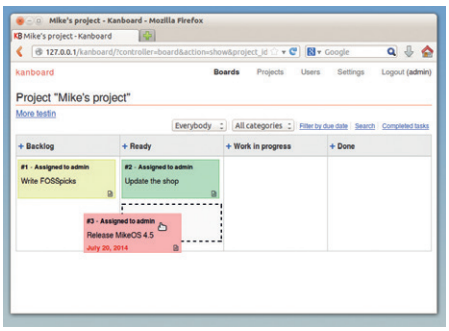
How it works: Creating a new task



1 Add to column
Choose the column to which you want to add the task, and click the blue plus (+) character next to its name. Here we'll add to the Backlog column.



2 Configure the task
Enter a title and description (Markdown is allowed). You can assign categories, colours and users to tasks, and even set due dates.



3 Move the task
Now the task will appear in the specified column. Awesomely, you can quickly drag-and-drop tasks into other columns as shown.

Siri-like natural communication tool

Betty 0.1.6

Along with flying cars and hoverboards, one of the things we were promised in the 1980s was perfect voice-recognition software. Never again would we have to prod clumsy keyboards and shuffle mice around – no, we'd simply recline in our executive office chairs and tell the computer to do all the hard work.

Of course, this hasn't happened, partially because of the vast variation in human accents and dialects, and also because in offices nobody wants to hear someone shouting "DELETE NEXT LINE" all day. The closest we have is Siri on Apple's lockdown-crazy iGadgets, which works fairly well, but even then it's still not perfect.

Betty is a FOSS Siri-like program, a digital assistant that tries to understand human language. It uses the command line for input right now, but it shouldn't be hard to bolt on an open source speech recognition program at some point. To get it (in your home directory):

```
git clone https://github.com/pickhardt/betty
alias betty="~/betty/main.rb"
```

Ruby is required for it to run. Now you can use **betty** followed by a string to interact with it. This just works for the current terminal session, so put the alias line in your **~/.bashrc** (**~** is your home directory) to make it always available.

Betty understands various human-friendly versions of Unix commands, so you can ask it to extract files and do wordcounts as in the screenshot. It can also pull information from the web, providing you do this command first:

```
betty turn web mode on
```

Now you can ask about the weather in cities, or what something is (with the text taken from Wikipedia). It's pretty rough round the edges – but that's to be expected given the low version number. Nonetheless, with a bit of polish, perhaps an attractive Qt/Gtk GUI and integration with a speech recognition tool, we Linux users could have a decent Siri-like system without becoming slaves to Apple.

```
mike@mike-megabox: ~
mike@mike-megabox:~$ betty what is the temperature in munich
Asking the internet...
Couldn't get a file descriptor referring to the console
Betty: Muenchen, Bayern: It is currently moderate or heavy rain shower, 63 Fahrenheit
mike@mike-megabox:~$ betty what is "Linux Voice"
Asking the internet...
Betty: Linux Voice is a Linux and open source magazine (print and digital) which began publication in the UK in 2014. It is sold on newsstands around the world. 1 History 2 Staff 3 Podcast 4 References 5 External links The magazine started as a result of a successful Indiegogo crowdfunding campaign in late 2013, which raised over £100,000. Editorial Director Andrew Gregory claimed the magazine will return a portion of profits to "the community that we serve". The editorial staff of the magazine come entirely from another UK magazine, Linux Format. They resigned to pursue a different agenda in magazine/online publishing. In addition to the magazine, the team produces a bi-weekly podcast covering Linux and wider Free Software issues.
mike@mike-megabox:~$ betty how many lines are in lv005_fosspicks.txt
Betty: Running find lv005_fosspicks.txt -type f -exec wc -l {} \; | awk '{total += $1} END {print total}'
381
mike@mike-megabox:~$
```

An example of some of the commands Betty understands. A full list is provided on the project's website

PROJECT WEBSITE
https://github.com/pickhardt/betty

Linux desktop remote control

PRemoteDroid

Linux is a great media centre OS. Hook your computer up to your TV via an HDMI cable, install a good media player like XBMC or VLC, and *voilà*: you can watch movies on the big screen. You could invest in a Wi-Fi/Bluetooth keyboard and touchpad combo to control the Linux-powered media box, but if you already have an Android phone or tablet, PRemoteDroid is the simplest solution.

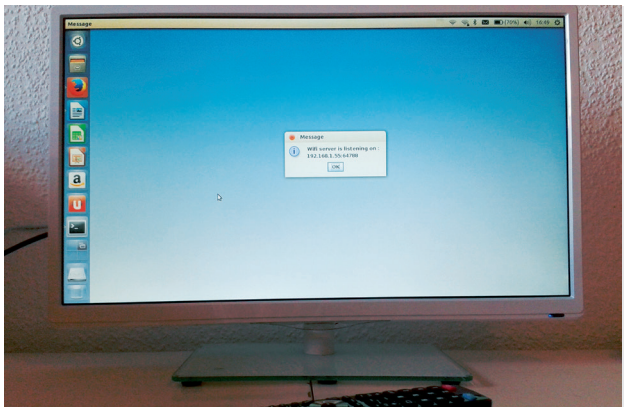
PRemote Droid works very well and takes almost no time to set up. Go to **http://code.google.com/p/premotedroid/downloads** and download **PRemoteDroid-Server.zip** into your home directory. Then open a terminal and enter:

```
unzip PRemoteDroid-Server.zip
cd PRemoteDroid-Server
java -jar PRemoteDroid-Server.jar
```

(You'll need Java installed for this to work – try the **default-jre** package if you're using Debian/Ubuntu/Mint.) This will start the server on your Linux box; you'll also see a new green icon in your desktop's notification area. Right-click to get information on the server, such as the IP address, port number and password (by default "azerty").

Go to the Play Store on your Android device and search for PRemoteDroid. Install it, run it and... you'll get a blank screen. Hit the Menu button and then Connections. Tap Menu again followed by New, enter the your server details, and tap the new connection.

"PRemoteDroid works well and takes almost no time to set up."



Here's our laptop connected to a TV, and PRemoteDroid telling us how to connect to it from our Android phone.

Go back, and you should now be able to move the mouse pointer on your Linux desktop from your phone (there are three mouse buttons at the top). Not bad, eh? So you already have an instant remote control from your couch, and you can also bring up a keyboard via the menu button. All you need now is a fluffy white cat.

PROJECT WEBSITE
http://code.google.com/p/premotedroid

Screen recorder

Byzanz

Making a recording of your screen is a great way to demonstrate something to another Linux user, show off your awesome terminal skills, or submit an extra-detailed bug report. But where do you start? There are jillions of video codecs out there, and then you need to upload the video to YouTube, or try to host it yourself… It gets complicated.

Byzanz makes life much simpler by recording to animated GIFs. Yes, this is a crusty old technology and many people wish GIFs would just go away and die, but they have the advantage that they work in nigh-on every web browser in existence, with no need for extra plugins, extensions or codec packs. And while GIFs aren't particularly efficient for long videos, for short "check this out" screen recordings they're fine.

Because Byzanz is a Gnome app (albeit driven from the command line), it needs the GStreamer development headers installed when building it from source. After **make install** you'll have two new binaries: **byzanz-record** and **byzanz-playback**. The latter doesn't interest us here as it's for fixing bugs, but the former generates a file when you run it like so:

```
byzanz-record myfile.gif
```

With no other options, this records the whole screen for 10 seconds and dumps the results into **myfile.gif**. You probably won't want to record the whole screen, however, so check out the manual page (**man byzanz-record**) to see how you can record just a selected area of the screen using the **-x**, **-y**, **-w** and **-h** options. Use **-d** followed by a number in seconds to alter the duration of the recording, and **-c** if you want to include the cursor.

Animated GIFs have limited colours, as you can see in the background here, but for most apps they do a solid job.

"For short 'check this out' screen recordings, GIFs are fine."

Byzanz isn't the most newbie-friendly recorder due to its many command line options, but it doesn't take long to learn the basics.

PROJECT WEBSITE
https://github.com/GNOME/byzanz

Media player

Mpv 0.3.10

Developers often get a lot of flak when they fork a project, but sometimes it's the only way forward. Look at what happened to XFree86: it was the dominant X Window System implementation on Linux and open source Unix flavours, but due to a variety of reasons issues, a bunch of hackers forked it and now we have the X.org server, which is faster, more reliable and requires less configuration. It was a huge win for the community.

Mpv is a similar project, in that it's a fork of MPlayer, one of the best-known media players in the Free Software world. Mpv's developers have ambitious goals that they believed couldn't be realised by continually patching the MPlayer codebase, so they've split off with their own version. It aims to remove cruft from the code, work better with modern hardware, and be easier to use.

Mpv is available for most major distros (see **http://mpv.io/installation**) along with Windows and Mac OS X. We installed it on an Ubuntu 13.10 test box using the PPA – this also has packages for 14.04, the latest release. While Mpv doesn't have a graphical front-end as such, it does include an on-screen display to pause and navigate through a movie.

Simplified command line

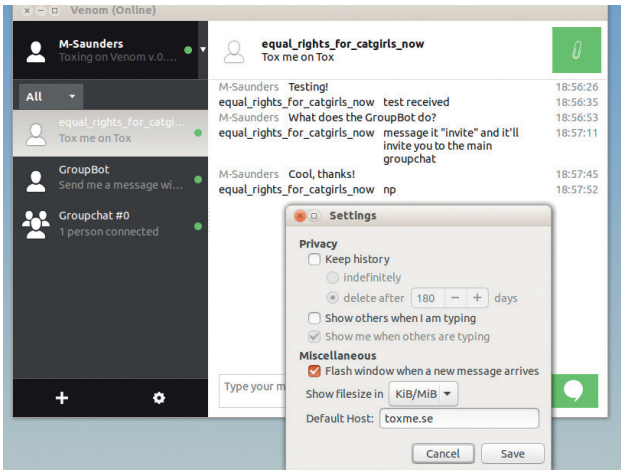
To use it, just pass it a filename at the command line: eg **mpv myfile.avi**. A huge range of codecs are supported, and it didn't choke on anything we threw at it. One of the goals of Mpv is to make it more user friendly by cleaning up the command line options, because if you've tried to use MPlayer before and delved into the manual page, you might've come away with a headache. So options have been renamed and some parameters have been changed to be more typically Linux/Unix-like.

Mpv plays pretty much anything, including our ancient RealPlayer-rips from VHS versions of 1980s Jackie Chan films.

PROJECT WEBSITE
www.mpv.io

Secure communication tool

Venom 0.2.0



Can you trust that your messaging service isn't being intercepted by the spooks? Use Venom and get your privacy back.

So here we are, one year on from the initial Snowden revelations. We know that our governments are spying on us on a horrific scale, and it's only getting worse. Fortunately, there are plenty of people out there who've learnt from history and know that this sort of obsessive surveillance from paranoid governments only ever ends in tears. One group of hackers is working on Tox (**www.tox.im**), a platform that aims to provide a completely secure, NSA/GHCQ-proof means to transmit instant messages and audio/video calls.

Tox itself refers to the service, protocol and library implementing the messenger back-end; to use it, you need a front-end client such as Venom. This is written in Vala/GTK and still early in development – like Tox itself – but it's already usable and looking pretty good. Check out the dependencies and build instructions on **https://wiki.tox.im/Venom**, then grab the source code from GitHub and compile it.

When you start Venom, you'll almost certainly hit an immediate hurdle: you have nobody to chat to! Very few non-technical people are using Tox at this stage, but if you hop on to IRC (FreeNode) and join the **#tox** channel, you'll find plenty of people to join you for a chat and give you their IDs. These are long sequences of alphanumeric characters – so click the **+** button in the bottom-left of Venom and paste in the string to add the person.

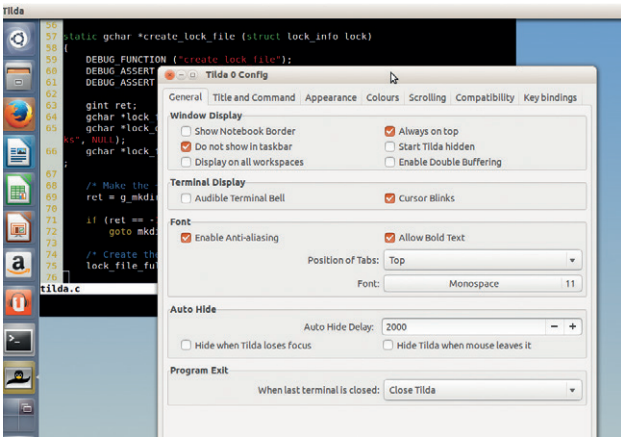
For extra security, Venom doesn't store the history of your conversations, but you can change that by clicking the Settings button at the bottom and enabling "Keep history". There's not much else to see in the client just yet, but it's a very promising tool and hopefully one step in the fightback against the surveillance madness.

"Venom is one step in the fightback against the surveillance madness."

PROJECT WEBSITE
https://github.com/naxuroqa/Venom

Pop-in terminal emulator

Tilda



Tilda is a godsend if you don't normally work in a terminal window, but you often open one up to enter a few quick commands.

Last issue we looked at terminal emulators in our group test, and although we covered five of the most notable, LV reader Ross Mounce alerted us to another that's worthy of a mention: Tilda. Whereas most terminals are designed to be standalone windows that you place on your desktop, Tilda is a "pop-in" terminal that jumps out of the corner of the screen when you need it.

So it doesn't have a billion features rammed in, but it's perfect for those times when you need to run a quick command or two, and you don't want to start another terminal to clutter up your desktop. The project's website lists the required dependencies, and once you've it compiled, run it with **tilda**.

By default, Tilda is designed to appear when you press the F1 key – but that's not very useful, as it can interfere with other programs. Via the preferences dialog and the Key bindings tab however, you can change it to something else – so find a key that you hardly ever use. (If you need to bring up the Preferences screen again in future, right-click on the Tilde window.)

Pop-up shell

And there you have it: press the key you chose, and Tilda will zip out from the top-left of the screen, providing an instant shell via a single tap. You'll find it useful straight away, but it's also fairly configurable. In the Preferences dialog, go to the Appearance tab and you can determine how much screen space Tilda should use.

It's also possible to choose from several colour schemes and enable scrollback and various compatibility options. By default Tilda is displayed in all workspaces of your desktop/WM, but that feature can be disabled too. It all works really neatly, and once you've been using it for a while and move to a desktop without it, you'll really miss it...

PROJECT WEBSITE
https://github.com/lanoxx/tilda

FOSSPICKS Brain Relaxers

Crazy skiing game

Ski 6.8

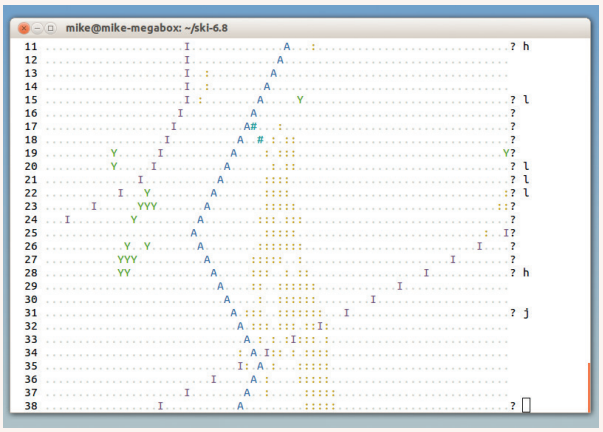
Skiing is fun, until you hit some trees. Or lose control on ice. Or get killed by a yeti, or burnt by a fire demon, or a nuclear missile blows up in your face. OK, so those latter scenarios are unlikely to happen in a normal trip to Tirol, but they're all possible in this sweetly comical text-mode skiing game.

Text-mode, did we just say? Well, yes, but ASCII art doesn't automatically make a game bad (see NetHack, also in this issue). In Ski you're sliding backwards down a mountain (due to some complications with your footwear), so you can't see what's coming up. Using the L and R keys to turn left and right, your goal is to survive for as long as possible, avoiding killer yetis and trees. If things get tough, you can hit J to jump or T to teleport, but these are always risky manoeuvres – you're never entirely sure how or where you'll land.

Keep warm

If a yeti (depicted by a scary blue A character) gets close to you and you're running out of options, you can hit I to launch a nuclear warhead and (hopefully) blast the beast to smithereens. Ski is turn-based, so you have time each move to make plans, but note that your character has momentum so you can't just change direction willy-nilly.

Because Ski is written in Python and has almost zero dependencies, you can just extract the archive, use the **cd** command to move inside it and run **./ski** to play it. And while it's not comparable to NetHack in the "I'll be playing this for years to come" stakes, it's surprisingly good fun and, like all of the best text-mode games, you can play it over SSH. Who needs fancy X/Wayland/Mir anyway?



The skiier (I) has slipped through some trees (Y) and is trying to avoid a yeti (A). Go off one side of the screen and you appear on the other.

PROJECT WEBSITE
www.catb.org/~esr/ski/ski.html

Role-playing game

Waste's Edge 0.3

You might not have heard of Waste's Edge before, but if you've been using Linux for a while and have kept one eye on the gaming scene, you might have heard of Adonthell. This is a role-playing game engine – that is, a framework for building RPGs. It has been in development since 1999, which reflects in its graphical style, and Waste's Edge is a small demo that shows off some of its features.

It's available in the stock repositories for X/K/L/Ubuntu, Debian, Fedora and other distros, or you can compile it from source (you'll need the tarballs for both Adonthell and Waste's Edge). When you start the game, an attractive and text-packed introduction sets the scene: you're on the road and arrive at a remote trading post. There you find that your mistress has been accused of a theft, so you set to work trying to discover the full story.

Verbose action

And the whole game is text heavy, with non-player characters providing extensive descriptions of events. You're not just an observer though; you can choose from different responses, which affect the type of information you receive.

Waste's Edge has superb classical-style music that generates a fitting atmosphere for the surroundings. Graphically it's old school and reminiscent of the classic 16-bit RPGs, and we wish that the text were easier to read. But despite the fact that it's a demo, Waste's Edge is great fun to explore, and we can't wait to see what's in store. LV

The text is blocky and occasionally hard to read, but some of the other graphics are well done.

PROJECT WEBSITE
http://adonthell.nongnu.org/index.shtml